



## 11.0 FINANCIAL PLAN

The financial plan is designed to provide CRIT with an in-depth approach to financing the development program recommended during the master planning process. Although comprehensive in breadth and depth, the financial plan remains tentative in nature; changing demands, activity levels, and legislation can significantly alter the optimal plan from one year to the next. Because of this, any financial implementation plan requires frequent reexamination and periodic adjustment as conditions warrant.

All forecasts of expenses and revenues were prepared using a consultant-developed computer model. The model was designed to readily accommodate changes in unit costs and variations in future-year expenses and revenues. Thus, the financial implementation plan can be updated periodically in order to maintain the Master Plan document as a viable working tool for CRIT and airport management.

The financial analysis for Avi Suquilla Airport is dependent upon historical financial data, facility requirements, and aviation demand forecasts. The remaining sections present the capital costs associated with the airport development program, the forecast of airport expense, the forecast of airport revenues, and the proposed program financing.

### 11.1 METHODOLOGY

Determining the financial implications of the recommended capital improvements program began with a description of the specific development items and an assignment of each item to one of three development phases:

- Phase I (Short-Range): FY 1986 - 1990
- Phase II (Intermediate): FY 1991 - 1995
- Phase III (Long-Range): FY 1996 - 2006

The construction costs of each capital improvement item were then estimated and totaled by development phase. Cost estimates were

established by applying current unit costs for each of the various elements to the number of units described in the development plan. Federal, local, and private shares of all costs were then computed. Funding assistance from state resources on Indian projects of this type is not available under present policy.

Airport financial records, together with the property inventory, were closely examined to develop a historical picture of actual and potential revenue production. Then, using projected increases in activity and additional facilities, Airport revenues and expenses were forecast for the planning period.

Annual cash flows were prepared in order to assess the cumulative effects of forecast revenues, expenses, and capital development. Subsequently, the need for capital improvement financing was determined, followed by a review and recommendation of financing methods.

#### 11.1.1 Federal Participation

From 1970 through September 30, 1980, federal participation in capital improvements at airports was provided through the Airport Development Aid Program (ADAP) under the Airport and Airways Development Act (AADA) of 1970, as amended. A 1-year extension of the Act made funds available until September 30, 1981. Replacement legislation, the Airport and Airways Improvement Act (AAIA) of 1982, was passed by both houses of Congress in August 1982, and will be in effect through September 30, 1987. The funding program associated with this Act is the Airport Improvement Act (AIP).

In the financial plan for Avi Suquilla Airport, it is assumed that federal participation will occur in the future essentially as it has in the past. Eligibility criteria are assumed to remain the same, with participation ratios remaining 90-percent federal funding matched by 10-percent local funding. It is highly unlikely that more federal participation would be enacted, although a lower federal share is

possible. Where a project is not eligible for federal participation, it is assumed that all costs associated with that project are borne by the sponsor, or private interests, or a combination of both.

## 11.2 FINANCIAL POLICIES AND PROCEDURES

The goal of financial policies and procedures at Avi Suquilla Airport is to provide a unified, rational approach that CRIT and Airport management can use in developing and operating the Airport. In this section, the Airport's pricing policy, general lease structure (should subletting become applicable in the future), and fees are presented.

### 11.2.1 Background

As stated earlier, the City of Parker signed a 25-year lease with CRIT for 198.26 acres for the Airport. Subsequent modification to the lease added 56.84 acres to the airport. In 1982, the lease between the Town of Parker and CRIT was cancelled, and the Airport reverted back to the responsibility of the Tribes. Consequently, financial data recording revenues and expenses for the Airport were available only for the period from 1982 through 1984.

In general, the accounting of financial activities relating to CRIT's business endeavors are summarized in each of three major fund categories: 1) the general fund, 2) the special revenue fund, and 3) the enterprise fund. The general fund is used to record transactions relating to the activities of the Tribes and programs funded by other government agencies that are restricted to expenditures for specified programs. Federal grants are recorded and administered by the general fund as well as expenditures for public improvements, public safety, public health, cultural and educational activities and day-to-day activities. Special revenue funds are used to account for revenues from agencies that are legally restricted to expenditures for specified purposes. The Revolving Credit Fund is the only special revenue fund maintained by the Tribes. Enterprise funds are used to account for operations that are financed and operated in a manner similar to private

business enterprises where the intent of the governing body is that the costs (expenses, including depreciation) of providing goods or services to the general public on a continuing basis be performed or recovered primarily through user charges. Accounts relating to Airport and FBO business activities are maintained in the "CRIT Air Fund," which is one of four enterprise funds.

#### 11.2.2 Pricing Concept

At Avi Suquilla Airport, Airport management and officials of the Business Enterprise Board are faced with the continuing task of selecting and refining basic financial policy to guide decisions in Airport affairs. A number of principles are now in use for pricing airport facilities and services. These are briefly reviewed below in order to set the stage for financial forecasting decisions and for program implementation.

#### 11.2.3 Direct Usage Rental Principles

For any land or facilities leased on the airport, the lessee pays a rental charge for the use of the buildings and land. Historically, fixed values have been set on the land for rental purposes. The rental charged for such land and facilities should reflect the market value for similar types of land plus at least a 12-percent return for the airport.

#### 11.2.4 Direct Volume Commission Principles

This principle is typically applied toward the various aviation services provided for at an airport. Since CRIT owns and operates the Airport and is the sole FBO, CRIT receives income from fuel sales which is equal to the difference between the wholesale cost of fuel from the vendor and the price charged at the pumps, or the "markup." Should an additional fuel vendor begin operations at the Airport, the sponsor would be justified in charging a fuel flowage fee which is typically applied toward fuel deliveries. Such fees usually range for 3 to 5 cents per gallon of fuel delivered.

### 11.3 DEVELOPMENT PROGRAM SCHEDULE AND COSTS

The Capital Improvement Program (CIP) detailing both timing and cost for the three development phases is presented in Table 11-1. The following paragraphs summarize the development of the columnar CIP entries.

Each development item was estimated using accepted engineering practices at a level of detail normally associated with project planning. Only aviation-related capital development is described. Major repair and replacement programs associated with leasehold maintenance and improvement must be continually reviewed on a case-by-case basis with individual tenants as deemed appropriate.

The major value of long-term planning is to ensure that adequate provisions have been made for projected growth and that any expenditures on capital improvements associated with that growth become part of the long-term development plan. It is neither practical nor necessary to complete all improvements as shown in the plan in one program. Recognizing this fact, it is a prudent policy to undertake new projects only as activity justifies the economic benefit for making such improvements and as financial resources permit.

For this analysis, construction/development unit costs were calculated using accepted unit descriptors and levels of precision. Annual unit costs were then applied to produce total costs, by line item, in 1985 dollars. Sources used in selecting unit construction costs were:

- 1984 Dodge Guide for Estimating Public Works Construction Costs: McGraw-Hill Information Systems Company.
- Building Construction Cost Data: Robert S. Means Company, Inc., 1984.
- Engineering personnel at Reynolds, Smith and Hills, Inc.
- Historical cost data from recent airport construction contracts.

An allowance for professional service fees and construction contingencies was considered in determining the various unit costs.

Table 11-1. Schedule of Airport Improvements - Avi Suquilla Airport

Phase	Schedule of Airport Improvements	Estimated Cost	Federal	State	Sponsor	Private	Remarks
Phase I (1986-1990)	***Patch and Seal-Coat Existing Paved Apron (Central area consisting of approximately 16,000 square yards)	\$47,846.00	\$43,061.00	—	\$4,785.00	—	Preapplication submitted to FAA. Unit cost per sy \$23.5.
	***Construct Asphalt Pavement North and East of Existing Paved Apron (Approximately 19,700 square yards)	\$265,598.00	\$239,038.00	—	\$26,560.00	—	Preapplication submitted to FAA. Unit cost per sy \$11.77.
	***Grade, Compact, and Oil Apron South of Existing Pavement (Approximately 18,000 square yards)	\$134,427.00	\$120,985.00	—	\$13,443.00	—	Preapplication submitted to FAA. Unit cost per sy \$6.39.
	***Patch and Seal-Coat Runway and Taxiway (Approximately 72,300 square yards)	\$200,135.00	\$180,121.00	—	\$20,013.00	—	Preapplication submitted to FAA. Unit cost per sy \$2.41.
	***Install 5 New Tiedowns and reposition approximately 21 existing tiedowns	\$4,004.00	\$3,604.00	—	\$400.00	—	Preapplication submitted to FAA. Cost per new tiedown \$36.00.
	*Construct New 8-Unit T-Hangar and taxilanes (1,300 square yards)	\$116,457.00	\$104,811.00	—	\$11,646.00	—	Sponsor financed or financed by private interests.  Cost per T-hangar Unit, \$9,500 pavement. Cost per sy \$8.23.
	*Construct T-Hangar Access Road and T-Hangar Parking Facility (Approximately 2,850 square yards of pavement)	\$58,636.00	\$52,773.00	—	\$5,864.00	—	Sponsor financed or financed by private interests. Cost of pavement per sy \$17.44. Site preparation for T-hangar area may be eligible for federal assistance if part of a larger project. Taxilanes between hangars are typically eligible for funding, but the connectors to the building are not.
TOTAL COST Phase I		\$827,103.00	\$744,393.00	\$0.00	\$82,711.00	\$0.00	

Table 11-1. Schedule of Airport Improvements - Avi Suquilla Airport (Continued, Page 2 of 3)

Phase	Schedule of Airport Improvements	Estimated Cost	Federal	State	Sponsor	Private	Remarks
Phase II (1991-1995)	*Install 6,480 Feet of Safety Fencing on East Side of Airport	\$18,108.00	\$16,298.00	--	\$1,811.00	--	To replace old barbed wire and control access to east side. Cost per linear foot \$2.30.
	***Construct Asphalt Pavement South of Existing Paved Apron (Approximately 18,000 square yards)	\$227,797.00	\$205,017.00	--	\$22,780.00	--	Preapplication submitted to FAA. Pavement cost per sy \$10.55.
	*Install REELS (Runway End Identifier Lights) at each runway end	\$4,278.00	\$3,850.00	--	\$428.00	--	Accomplished under FAA F&E Program. Approximately \$2,139 per runway end.
	***Install 10 New Tiedowns on South Apron - Reposition approximately 45 existing tiedowns	\$3,080.00	\$2,772.00	--	\$308.00	--	Preapplication submitted to FAA. Cost per new tiedown \$36.00.
	*Construct Additional 8-Unit T-Hangar and taxiways (approximately 960 square yards of pavement)	\$112,751.00	--	--	\$112,751.00	--	Sponsor financed or financed by private interests. Cost per T-hanger unit, \$9,500. Pavement cost per sy \$8.23.
	*Pave Parking Lot North of FBO (approximately 3,600 square yards)	\$33,410.00	--	--	\$33,410.00	--	Sponsor financed. Cost per sy \$9.77.
	*Expand Long-Term Automobile Parking Area (approximately 1,000 square yards). Install 100 linear feet of new fence	\$12,671.00	--	--	\$12,671.00	--	May be accomplished by "in-kind" services - cost includes grading, oiling and fencing only. Unit cost per sy \$10.56.
	*Construct new access road to long-term parking area; 1,000 sy pavement	\$12,395.00	\$11,155.00	--	\$1,239.00	--	Cost per sy \$10.33.
TOTAL COST Phase II		\$424,490.00	\$239,092.00	\$0.00	\$185,398.00	\$0.00	



Table 11-1. Schedule of Airport Improvements - Avi Suquilla Airport (Continued, Page 3 of 3)

Phase	Schedule of Airport Improvements	Estimated Cost	Federal	State	Sponsor	Private	Remarks
Phase III (1996-2005)	***Construct Additional Apron Pavement and Taxiway Stub on North End of Aircraft Parking Ramp (approximately 10,300 square yards)	\$150,234.00	\$135,211.00	—	\$15,023.00	—	Preapplication submitted to FAA cost per sy \$12.52.
	*Expand Parking Lot North of FBO by approximately 2,225 square yards	\$25,275.00	—	—	\$25,275.00	—	Sponsor financed. Cost per sy \$9.47.
	*Expand Long-Term Automobile Park Area (approximately 975 square yards). Install approximately 140 linear feet of fencing	\$11,462.00	—	—	\$11,452.00	—	May be accomplished by "in-kind" services - cost includes grading oiling and fencing only. Cost per sy \$9.80. Cost per linear foot \$2.30.
	*Construct Additional 4-Unit T-Hangar (Cabin Class Twins) and taxilanes (approximately 844 sy)	\$60,374.00	—	—	\$61,710.00	—	Sponsor financed or financed by private interests. Cost per T-Hangar Unit, \$9,500. Cost per sy pavement \$8.23.
TOTAL COST Phase III		\$247,345.00	\$135,211.00	\$0.00	\$113,470.00	\$0.00	
TOTAL PROGRAM COSTS		\$1,498,938.00	\$1,118,696.00	\$0.00	\$381,579.00	\$0.00	

Source: RSH, 1986.

The total projected cost was then allocated to federal, local and private shares based on current eligibility criteria. For items that are eligible for federal funds, the federal government will pay 90 percent of project costs, and the sponsor will pay the remaining 10 percent. Some items such as hangars may be financed by the sponsor or by private interests.

#### 11.3.1 Summary of Proposed Projects

As shown in the proposed schedule of implementation, Phase I projects address primarily those items which already exist at the Airport but are in need of periodic maintenance, such as seal coating the runway, taxiway, and parking apron surfaces. The construction of additional apron pavement north of the existing paved apron is also proposed to eliminate any foreign object damage which might occur due to the poor condition of the oiled surface which presently exists. Construction of an 8-unit T-hangar and a T-hangar parking facility and access road are also proposed. Phase II projects include 1) the replacement of barbed wire fencing along the west perimeter of the Airport with chain-link fence and 2) the construction of additional apron pavement on the south parking ramp to replace the existing stabilized surface which is in poor condition and in a constant state of repair. Also proposed in Phase II is the relocation of the long-term automobile and recreational vehicle parking area to the north of its present position to allow greater circulation in the area of the passenger terminal and FBO facility.

#### 11.4 HISTORICAL REVENUES AND EXPENSES

This section describes the historical revenues and expenses incurred at Avi Suquilla Airport. Later, these revenues and expenses will be forecast and compared in order to determine whether operating surpluses or deficits can be expected during the planning period given the proposed schedule of implementation.

#### 11.4.1 Airport Operating Revenue

As shown on Table 11-2, operating revenues have been increasing steadily over the past 3 years showing a 34-percent increase in 1984 over revenues in 1982. Cost of services rose 22.3 percent for the same period reflecting an improvement in the Airport operating margin over the past 3 years. A review of the existing Airport rates and charges would indicate that profit margins could be improved to an even greater extent by increasing certain charges for Airport services such as tiedown and overnight parking fees and long-term auto parking fees.

#### 11.4.2 General Operating Expenses

Along with the increases in revenue, general operating expenses have been on the increase over the past 3 years, but at a much lower rate (approximately 6.3 percent over 1982 operating expenses). Much of this increase is due to the hiring of additional personnel (pilots and crew) to operate the FBO's expanded cargo business as administrative costs increased by nearly 38 percent between 1982 and 1984. While some of this expense may be considered as "start-up cost", it is anticipated that the expanded cargo business will increase revenues over time to a point where the business is profitable, and excess revenue may be used to subsidize the Airport operation as needed. Other expenses incurred during the past 3 years include a loss on the sale of assets amounting to \$26,391 in 1983 and a debt owed the Tribes' General Fund. This debt consists of interfund transactions in which the Tribes' General Fund has expended monies on behalf of the Air Fund for which the General Fund is eventually to be reimbursed. Major purchases for equipment and insurance by the general fund are documented by the signing of notes between the two funds. Included in the amount due at September 30, 1984 is \$113,142 of past due accrued interest owed on notes payable to the Revolving Credit Fund, which was paid by the General Fund.

At September 30, 1984, the notes payable to the Revolving Credit Fund consisted of four notes totaling \$328,909, bearing interest at

Table 11-2. Statement of Revenues, Expenses and Changes in Retained Earnings—  
Avi Suquilla Airport

Category	1982*	1983**	1984
<u>OPERATING REVENUES:</u>			
Flight Operations	\$185,896.00	\$196,008.00	\$320,825.00
Line Services	178,024.00	114,318.00	121,041.00
Aircraft Maintenance	33,045.00	93,266.00	81,560.00
Hangar/Tiedown Fees	4,888.00	15,343.00	18,929.00
Miscellaneous	4,800.00	576.00	2,726.00
Total Operating Revenue	\$406,653.00	\$419,511.00	\$545,081.00
Cost of Services:	(\$336,616.00)	(\$281,035.00)	(\$411,526.00)
Gross Profit	\$70,037.00	\$138,476.00	\$133,555.00
<u>GENERAL OPERATING EXPENSES:</u>			
Administrative	\$74,210.00	\$73,891.00	\$102,503.00
Utilities	14,541.00	18,872.00	23,893.00
General Maintenance	3,557.00	3,965.00	6,170.00
Depreciation	42,505.00	5,899.00	9,418.00
Supplies	3,793.00	7,632.00	10,016.00
Outside Services	3,502.00	7,887.00	9,649.00
Bad Debts	660.00	—	—
Interests	1,393.00	—	—
Insurance	16,981.00	—	9,320.00
Miscellaneous	3,450.00	1,859.00	3,913.00
Total General Operating Expense	\$164,592.00	\$120,005.00	\$174,882.00
Net Income (Loss) from Operations:	(\$94,555.00)	\$18,471.00	(\$41,327.00)
Other Income (Expense):	(\$400.00)	(\$26,391.00)	(\$17,396.00)
Net Gain (Loss):	(\$94,955.00)	(\$7,920.00)	(\$58,723.00)
Retained Earnings (Deficit): End of Period	(\$188,374.00)	(\$196,294.00)	(\$262,840.00)

\* Fiscal Year in 1982 ended on December 31st.

\*\*Fiscal Year in 1983 ended on September 30th. Therefore, only 9 months are accounted for in 1983 due to the change in accounting periods.

Source: CRIT financial records for the years indicated.  
RS&H, 1985.

11.7 percent. Payments with interest on these four notes, for the 5-year period ending September 30, 1989 are as follows:

1985	\$204,438
1986	45,893
1987	40,032
1988	40,032
1989	40,032

Total interest expense on these notes for the year ending September 30, 1984 was approximately \$53,000.

#### 11.5 AIRPORT REVENUE AND EXPENSE PROJECTIONS

The forecast of Airport revenues and expenses, shown in the Cash Flow and Earnings statements (Tables 11-3 and 11-4) were based upon individual consideration of all items identified as part of the improvement program along with the revenue and expense characteristics of Airport and FBO operations over the past three years. The projections were calculated on a constant dollar basis (1985 dollars) with increases in annual dollar amounts being attributable to increases in economic activity at the Airport without any inflation factor. Airport revenues include cash inflows from Airport operations and from the FBO's cargo operation in Phoenix, Arizona, since both are accounted for under the same fund. Cash outflows include the cost of operation, normal variables and fixed expenses, previous debts owed to the fund (plus interest), and the cost of recommended Airport improvements stated as a 20-year annuity.

The cash flow statement shows the funds contributed to or withdrawn from the operation in each year. Cash flowing into the operation is positive while funds flowing out of the operation are shown in parenthesis. The outlay for the acquisition or construction of assets is shown in the fixed capital column, and operating cash flow, which equates to revenue minus fixed capital, working capital, ongoing operating cost and unusual

Table 11-3. Cash Flow Statement, \$ Thousands - Avi Suquilla Airport

During Year	Revenue	Fixed Capital	Working Capital	Ongoing Operating Cost	Unusual Expense	Operating Cash Flow	Debt Proceeds/ Repayment	Net Tax	Aftertax Cash Flow
1986	545	(381)	(106)	(587)	(17)	(546)	252	0	(294)
1987	577	0	(4)	(609)	0	(35)	(30)	0	(66)
1988	611	0	(4)	(631)	0	(24)	(30)	0	(54)
1989	647	0	(4)	(655)	0	(12)	(30)	0	(42)
1990	685	0	(4)	(679)	0	2	(30)	0	(28)
1991	726	0	(5)	(704)	0	17	(30)	0	(13)
1992	769	0	(5)	(730)	0	34	(30)	0	4
1993	814	0	(5)	(757)	0	52	(30)	0	22
1994	862	0	(5)	(785)	0	72	(30)	0	42
1995	913	0	(5)	(814)	0	94	(30)	0	64
1996	967	0	(5)	(844)	0	117	(30)	0	87
1997	1,024	0	(6)	(875)	0	143	(30)	0	113
1998	1,084	0	(6)	(908)	0	171	(30)	0	141
1999	1,148	0	(6)	(941)	0	201	(30)	0	171
2000	1,216	0	(6)	(967)	0	234	(30)	0	203
2001	1,288	0	(7)	(1,012)	0	269	(30)	0	239
2002	1,364	0	(7)	(1,050)	0	307	(30)	0	277
2003	1,444	0	(7)	(1,089)	0	349	(30)	0	319
2004	1,529	0	(7)	(1,129)	0	393	(30)	0	363
2005	1,620	0	(8)	(1,171)	0	441	(30)	0	411
2006	0	0	211	0	0	211	(53)	0	158
2007	0	0	0	0	0	0	0	0	0
2008	0	0	0	0	0	0	0	0	0
2009	0	0	0	0	0	0	0	0	0
	19,834	(381)	0	(16,946)	(17)	2,490	(372)	0	2,118

Source: RS&H, 1986.

Table 11-4. Earnings Statement, \$ Thousands (Book Accounting Basis) - Avi Suquilla Airport

During Year	Revenue	Ongoing Operating Cost	Unusual Expense	Book Deprec- iation	Operating Earnings	Loan Fees and Interest	Pretax Earnings	Net Tax	Aftertax Earnings Flow
1986	545	(587)	(17)	0	(59)	(27)	(86)	(0)	(86)
1987	577	(609)	0	0	(32)	(26)	(58)	(0)	(58)
1988	611	(631)	0	0	(20)	(26)	(46)	(0)	(46)
1989	647	(655)	0	0	(7)	(25)	(33)	(0)	(33)
1990	685	(679)	0	0	7	(25)	(18)	(0)	(18)
1991	726	(704)	0	0	22	(24)	(2)	(0)	(2)
1992	769	(730)	0	0	39	(24)	15	(0)	15
1993	814	(757)	0	0	57	(23)	34	(0)	34
1994	862	(785)	0	0	77	(22)	55	(0)	55
1995	913	(814)	0	0	99	(21)	78	(0)	78
1996	967	(844)	0	0	123	(20)	103	(0)	103
1997	1,024	(875)	0	0	148	(19)	130	(0)	130
1998	1,084	(908)	0	0	177	(18)	159	(0)	159
1999	1,148	(941)	0	0	207	(16)	191	(0)	191
2000	1,216	(976)	0	0	240	(15)	225	(0)	225
2001	1,288	(1,012)	0	0	275	(13)	263	(0)	263
2002	1,364	(1,050)	0	0	314	(11)	303	(0)	303
2003	1,444	(1,089)	0	0	356	(8)	347	(0)	347
2004	1,529	(1,129)	0	0	401	(6)	395	(0)	395
2005	1,620	(1,171)	0	0	449	(3)	446	(0)	446
2006	(381)	0	0	0	(381)	0	(381)	(0)	(381)
2007	0	0	0	0	0	0	0	(0)	0
2008	0	0	0	0	0	0	0	(0)	0
2009	0	0	0	0	0	0	0	(0)	0
	19,453	(16,946)	(17)	0	2,490	(372)	(372)	0	2,118

Source: RS&H, 1986.

expense is shown in Column 6. Debt proceeds/repayment reflects monies owed the general fund as well as other debts and is considered the net cash contributed by or withdrawn in the service of a fixed capital loan or working capital loan, while aftertax cash flow is operating cash flow minus debt proceeds/repayment and tax. However, in this case, tax is not a factor as the Airport and FBO enterprise operate on a cash basis. Tax advantages and disadvantages would become a factor if the enterprise were to incorporate.

As shown in Table 11-3, the operation begins to show a positive cash flow in the 4th and 5th years, which is largely due to anticipated increases in revenue from the FBO's expanded cargo operation. Figure 11-1 graphically displays this cash-flow relationship.

#### 11.5.1 Financial Feasibility

Capital budgeting is the term applied to the decisionmaking process for determining the acceptance or rejection of new investments, or the financial feasibility of project implementation. However, not all investments an airport undertakes are motivated by profit possibilities. At the same time it cannot be denied that airports should be committed to maximizing revenues and profits. The financial feasibility of a project may be determined by comparing the net present value of expected cash inflow resulting from project implementation to the initial cost of the project. To calculate the net present value (NPV) of the Airport's capital improvement program, the cash flow that the program will generate each year into the future must be estimated and discounted to determine the present value of expected revenues. Based on the projection of cash inflows over the planning period, the discounted net present value of the project was calculated to be \$431,920, as compared to the \$381,579 cost of program implementation. Since projected cash inflows exceed program costs, the program may be considered financially feasible even though it is recognized that not all future inflows are directly related to the revenue-generating capability of program elements, either individually or collectively. This calculation also yields an internal



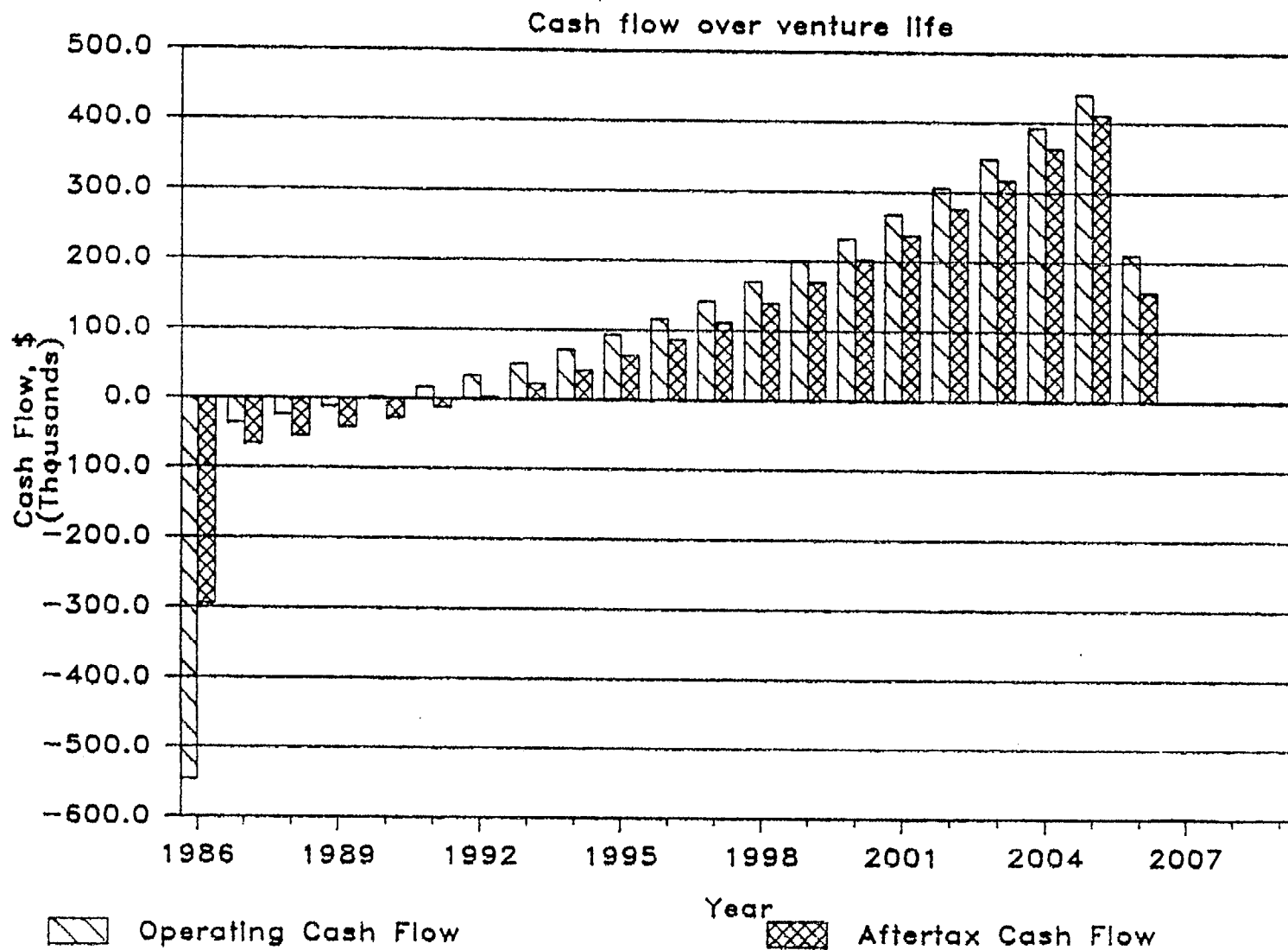


Figure 11-1  
CASH FLOW PROJECTIONS

SOURCE: RS&H, 1985

AVI SUQUILLA AIRPORT  
MASTER PLAN

rate of return of 12.5 percent which is considered desirable. The internal rate of return (also called the discounted cash flow) is useful in comparing the profitability of one investment over another.

An earnings statement was also generated as a part of this analysis. As shown in Table 11-4 and Figure 11-2, the earnings statement (also called the income statement, profit and loss statement, and operations statement) matches expense deductions against revenue in accordance with Generally Accepted Accounting Principles; however, the end result after 20 years of operation is the same as shown in the cash flow statement. Therefore, the earnings statement is a projection of the status of internal accounts at the end of each year of operation.

Finally, it should be noted that the results of the revenue and expense projection may be viewed in either of two ways: 1) if the revenue and expense projections are accurate, the program will be financially feasible and the Airport enterprise will be profitable, or 2) Airport management may wish to use these projections of revenue and expense to formulate profit goals and budgets to ensure the program's feasibility, to maximize the Airport's revenue generating capability, and to improve the FBO's profitability. In either case, the projections generated in this analysis should be revisited from time to time and adjusted as necessary to maintain their usefulness as management tools.

#### 11.5.2 Capital Investment

Avi Suquilla Airport will become involved in a major improvement program that will be spread over the next 20 years. The majority of the capital improvements recommended in this study are designed to develop the operations and safety of the Airport and to optimize the Airport's revenue-generating capability. Even though the capital improvement program has been determined to be financially feasible overall, the initial investment in the Airport should not be judged solely upon the direct dollar return as a measure of value of the Airport to the community. Past experiences have shown that intelligent, progressive

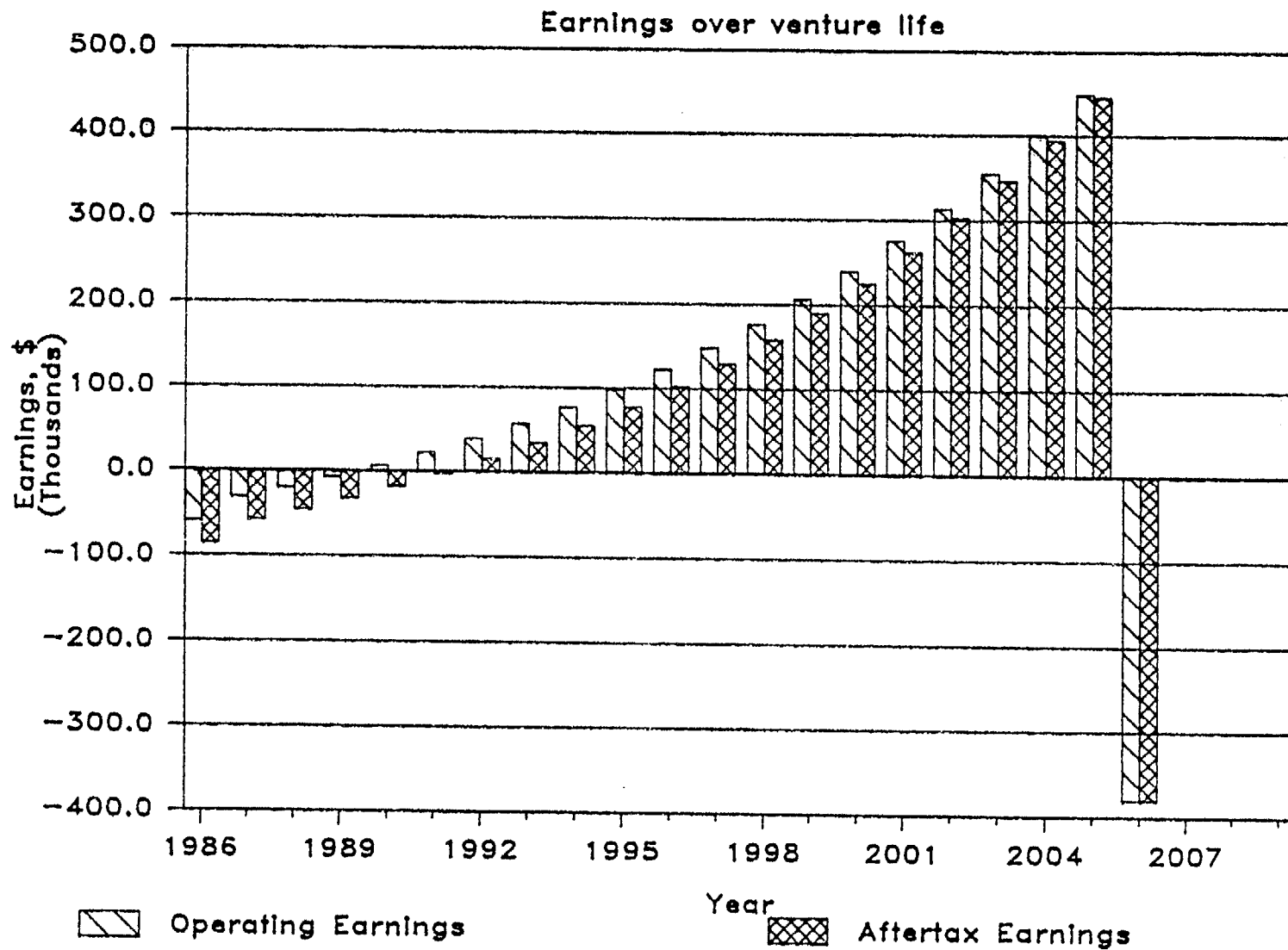


Figure 11-2  
EARNINGS PROJECTIONS

SOURCE: RS&H, 1985

AVI SUQUILLA AIRPORT  
MASTER PLAN

aviation development has provided communities with benefits that have figured considerably on civic economic growth. The following are only a few of the benefits that have been realized:

- Airport development is a catalyst for business and industrial growth. Industrial expansion furnishes employment for surplus labor.
- An airport can be an attraction for new industry. Experience has shown that the proximity to air facilities has been an important factor in the decision of business locations, based on the feasibility of proposed sites.
- An airport can be an important factor in retaining commerce and industry. Findings have indicated that companies with proximity to air facilities have retained and even improved competitive positions in local, national and international markets.
- Air transportation is an aid to industrial equipment maintenance programs. Aviation has made it possible to achieve the lowering of "down time" by rapid replacement of parts and supplies, thus reducing the need for a large inventory.
- An airport provides access to the national air transportation system which is important to the facilitation of business and recreations.

That Avi Suquilla Airport has a measurable impact on the community is being demonstrated as the Airport represents an indispensable public service. While the Airport is not generally considered a public utility, its characteristics fall very close to, if not within, this classification. The Airport serves as a major growing segment of the state's system of airports and is expected to be continually faced with increasing demands upon its facilities. The economic impact of the Airport on the local community is discussed in Section 12.0

#### 11.6 RATES AND CHARGES - GENERAL

Several factors should be taken into consideration to ensure that the amount charged to a lessee for the lease of airport land is fair to all

parties concerned and consistent among all tenants of a particular category. The airport's location and surrounding land value, its operational role and level of activity, the cost of facility maintenance, and the number of businesses in direct competition at the airport are a few of these considerations. No two airports are exactly alike in these areas, and consequently, there are almost as many methods for determining airport rates and charges as there are airports. As stated earlier, airport land may be categorized as either: (1) aviation use, or (2) nonaviation use. Land designated for aviation use is leased to businesses engaged in providing aeronautical services to the flying public such as fueling, maintenance, and aircraft rental. Nonaviation uses of airport land include the operation of a restaurant, airport industrial complex, or other similar businesses serving the general public as well as airport users. Typically, the rates charged for aviation use are less than those charged for nonaviation use because the revenue generated by serving only airport users (as opposed to airport users and the general public) is relatively smaller.

Most methods for determining rates and charges are based on one or more of the following models:

- Cost recovery;
- Market value; and
- Lease hold appraisal.

As the term implies, cost recovery seeks to recover the costs associated with the operation and maintenance of the airport resulting from normal use. Variations allow the airport operator to set rates and charges at a level that will achieve the break-even point or a predetermined rate of return. Rates may also be set based on the FBO's share of the costs determined by either the size of the leasehold relative to all leased land in the same category or the level of business generated by the FBO as determined by fuel sales or some other common denominator.

The cost recovery method is most often found at larger airports with high levels of activity and numerous FBOs. Here, the dollar volume in revenue is sufficient to recover costs, and the costs are spread over numerous revenue sources.

The market value approach entails a survey of airports having similar characteristics (total annual operations, based aircraft, and number of FBOs) to determine the level of rates and charges for similar land uses. Although this method makes the airport competitive with other airports having similar characteristics, it does not take into account the true value of the airport land nor the cost of maintaining the facility. Additionally, since aviation use leases tend to be long-term (10 years or more), the value obtained from a survey of rates and charges may be outdated, thereby reflecting lower than average rates. However, most lease renewals today incorporate a sliding scale attached to an economic index (such as the Consumer Price Index) which adjusts the base charges annually at the beginning of the business year, or every 3 to 5 years depending upon the local area's economic climate.

Rates and charges may also be determined based on a percentage of the appraised value of the leasehold. According to the National Air Transportation Association (NATA) and the American Association of Airport Executives (AAAE), the percent of appraised value method is being initiated at several airports where leases are due for renegotiation. The advantage of this method is that it may be applied to both aviation and nonaviation use leaseholds on a consistent basis. One possible drawback is that appraisals often vary between appraisors and appraisal methodologies. Consequently, care must be taken to ensure that the same method of appraisal is used for all lease plots of the same tenant category (aviation or nonaviation).

The most logical approach to determining airport rates and charges entails the combined evaluation of information from surveys, financial analyses and appraisal of improvements to the leasehold. Three

different information sources are used because no one source by itself is considered sufficient to determine rates and charges for the long term. For instance, in using only the survey method, rates and charges may be set artificially low because the values obtained from the survey typically reflect a level of charges that were adequate 10, 15 or 20 years ago, when the lease was negotiated and executed without benefit of a sliding scale (CPI). In using only financial analysis as a means of determining rates and charges, the cost of operating an airport may necessitate the setting of rates and charges at a level that is not competitive with other airports with similar aviation roles. The appraisal methodology is useful for determining rental for improvements on the airport; however, surrounding land values could (and frequently do) overstate the value of aviation-use land. As a result, all of these information sources must be analyzed in unison, and evaluated relative to the airport's current and projected aviation role, along with characteristics which are unique to the airport, such as location, fleet mix, number of based aircraft, level of activity, and expansion capability.

Finally, when determining a new level of rates and charges, it is important to consider the existing rate structure and the effect an increase in rent might have on the tenant. The percentage of appraised value plus the amounts charged for land rental, FBO services, car rentals and other services should yield a fair return for the use of airport facilities, while allowing the FBO to operate in a profitable manner. Taking this into consideration, each component of the rate-setting mechanism (base rent, percent of appraised value, and FBO service fees) may be adjusted to arrive at the desired level of total charges.

#### 11.7 METHOD OF PAYMENTS - GENERAL

Conceivably, any authorized activity on the airport may be charged for the privilege of using the airport premises. The charges for use of airport property are generally classified as "fees" or flat rate/percentage charges per unit of product, "percents-of-gross-revenues," and "rental" charges associated with real estate and improvements.

The fees which are most commonly charged a general aviation airport are applied against such items as aviation fuel and oil which is either delivered or used by the FBO in the normal course of business. In this regard, it is usually best to apply the fee against the gallons of fuel and quarts of oil "delivered," as opposed to "amounts sold," primarily because these products are more easily accounted for using the delivery invoice rather than dealing with numerous fuel and oil sales receipts.

"Percents-of-gross-revenues" charges or a flat fee are usually applied to those businesses which are nonaviation related but are operating at the airport. When using a percent-of-gross method, gross revenue is used as opposed to a percent of net or other similar method primarily because gross revenues are more easily identified and are less likely to fall subject to creative bookkeeping.

Land rental charges may fall into either one of two major categories: aviation-use and nonaviation-use. These two rental categories are further subdivided into improved land and unimproved land. Any airport real estate (excluding that required for runways, taxiways, clear zones and set-back requirements) may be considered "improved land" if utilities are installed and/or buildings or pavement are constructed upon the real property; otherwise, the land may be classified as "unimproved." Where aviation-use property is concerned, a flat charge per square foot annually is recommended for unimproved land while the charge for improved airport land is based on the flat charge per square foot (same as for unimproved land) plus a percentage of the appraised value of leasehold improvements for a particular leasehold.

Additionally, any appraisal performed on improved aviation-use land should be based on the "special use" or similar appraisal formula to reflect the use of the land as such and to negate the market value



impacts of commercial land in the immediate vicinity. This is necessary due to the large area that airports occupy and the associated high cost of airport maintenance per square foot relative to the revenue produced per square foot strictly from aircraft operations. This also explains why many small airports are seeking to develop airport industrial parks to earn the necessary additional revenue to make the continued operation of the airport financially feasible.

Nonaviation land uses are typically charged a minimum base rent and/or a percent of gross revenue (or guaranteed minimum) from business operations. The minimum base rent in this case is also based on an appraisal; however, the appraisal should reflect the fair market value of the land as it relates to similar land uses locally. The primary advantage of the appraisal method is that it provides a consistent method of determining rates and charges which is fair to all tenants of the same category.

If, during the course of the lease term, the tenant or landlord makes additional improvements to the leased property, it is recommended that the property be reappraised upon completion of construction (or the construction cost of the improvement added to the original appraisal), again with the percentage of the appraisal remaining constant to establish the new charge. If the improvement is tenant financed, an increase in the tenant's base rent is usually delayed until the original lease term and all options for renewal have expired, although this is the option of the landlord. This allows the tenant to amortize the investment over a number of years while the landlord gains benefit by receiving title to the improvement upon the termination of the existing lease. If the improvement to the leasehold is landlord financed, the tenant would receive a rental increase (based on new appraisal) upon completion of construction.

#### 11.8 SUMMARY

In this section, project staging and line item costs were established to determine the local share of total program costs. These costs were, in

turn, compared to existing and projected revenues and expenses to determine the ability of the Airport fund to finance planned improvements. The findings of the financial analysis indicated that no negative effects in fund equity may be expected as a result of project implementation.